

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A method for suppressing a reduction in an endoglucanase activity in the presence of a surfactant, characterized by modifying a protein having the endoglucanase activity in which the N-terminus is an amino acid other than pyroglutamic acid, to a protein having the N-terminus of pyroglutamic acid.
2. (original): The method according to claim 1, wherein the modification is carried out by adding pyroglutamic acid or an amino acid convertible into pyroglutamic acid, or a peptide having the N-terminus of pyroglutamic acid or an amino acid convertible into pyroglutamic acid, to the N-terminus of the protein having the endoglucanase activity in which the N-terminus is an amino acid other than pyroglutamic acid.
- 3.(original): The method according to claim 1, wherein the modification is carried out by substituting pyroglutamic acid or an amino acid convertible into pyroglutamic acid, or a peptide having the N-terminus of pyroglutamic acid or an amino acid convertible into pyroglutamic acid, for the N-terminal amino acid or an N-terminal region of the protein having the endoglucanase activity in which the N-terminus is an amino acid other than pyroglutamic acid.

4. (currently amended): The method according to claim 1 ~~any one of claims 1 to 3~~, wherein the protein having the endoglucanase activity in which the N-terminus is an amino acid other than pyroglutamic acid is a cellulase belonging to family 45.

5. (original): A modified protein having an endoglucanase activity wherein the N-terminal amino acid is converted into pyroglutamic acid by an amino acid modification.

6. (currently amended): The modified protein according to claim 5, which is obtainable by a method for suppressing a reduction in an endoglucanase activity in the presence of a surfactant, characterized by modifying a protein having an endoglucanase activity in which the N-terminus is an amino acid other than pyroglutamic acid, to a protein having an N-terminus of pyroglutamic acid ~~the method according to any one of claims 1 to 4.~~

7. (original): A protein selected from the group consisting of:

(a) a protein comprising the amino acid sequence of SEQ ID NO: 2, 4, 38, or 40;

(b) a modified protein comprising an amino acid sequence in which one or plural amino acids are deleted, substituted, inserted, or added in the amino acid sequence of SEQ ID NO: 2, 4, 38, or 40, and having an endoglucanase activity whose reduction in the presence of a surfactant is small; and

(c) a homologous protein comprising an amino acid sequence having at least 85% homology with a protein comprising the amino acid sequence of SEQ ID NO: 2, 4, 38, or 40, and having an endoglucanase activity whose reduction in the presence of a surfactant is small.

8. (currently amended): A polynucleotide encoding the protein according to claim 5, ~~any one of claims 5 to 7.~~

9. (original): A polynucleotide selected from the group consisting of:

- (a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO: 1, 3, 37, or 39;
- (b) a polynucleotide comprising a nucleotide sequence in which one or plural nucleotides are deleted, substituted, inserted, or added in the nucleotide sequence of SEQ ID NO: 1, 3, 37, or 39, and encoding a protein having an endoglucanase activity whose reduction in the presence of a surfactant is small; and
- (c) a polynucleotide hybridizing under stringent conditions to a polynucleotide consisting of the nucleotide sequence of SEQ ID NO: 1, 3, 37, or 39, and encoding a protein having an endoglucanase activity whose reduction in the presence of a surfactant is small.

10. (currently amended): An expression vector comprising the polynucleotide according to claim ~~8 or 9~~.

11. (original): A host cell transformed with the expression vector according to claim 10.

12. (original): The host cell according to claim 11, wherein the host cell is a yeast or filamentous fungus.

13. (original): The host cell according to claim 12, the filamentous fungus is a microorganism belonging to genus Humicola or Trichoderma.

14. (original): The host cell according to claim 13, the filamentous fungus is Humicola insolens or Trichoderma viride.

15. (currently amended): A process for producing the protein according to claim 5 ~~any one of claims 5 to 7~~, comprising:

cultivating a host cell transformed with an expression vector comprising a polynucleotide encoding the protein ~~the host cell according to any one of claims 11 to 14~~, and recovering the protein from the host cell or culture obtained by the cultivation.

16. (original): A protein produced by the process according to claim 15.

17. (new): The method according to 2, wherein the protein having the endoglucanase activity in which the N-terminus is an amino acid other than pyroglutamic acid is a cellulase belonging to family 45.

Preliminary Amendment

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18. (new): The method according to claim 3, wherein the protein having the endoglucanase activity in which the N-terminus is an amino acid other than pyroglutamic acid is a cellulase belonging to family 45.

19. (new): The modified protein according to claim 2.

20. (new): The modified protein according to claim 3.